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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,718	10/31/2003	Hiroki Nakamura	4041J-000783	9604

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EXAMINER
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FORD, JOHN K

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/698,718

Applicant(s)

NAKAMURA, HIROKI

Examiner

John K. Ford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 9, 2006
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 210, 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11, 12, 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's response of November 8, 2006 has been carefully considered. The argument that spans pages 19-20 of applicant's response is somewhat confusing to the examiner. Apparently the point of alleged patentability is in the recitation "means for controlling the allowed maximum electric power value consumed in the electric part [a heater by disclosure]" is higher when regeneration is taking place than when no regeneration is taking place. Because this is a means plus function recitation the examiner went back to the specification to find out what disclosed structure corresponded to this claimed "means". The only explanation that seemed relevant to the elected species was found on page 17 of the specification beginning at line 14, wherein it discloses that in the regenerative mode "electricity [from the motor 2] is supplied to the electric heater." In particular on page 17, line 18-21 it states: "Namely, when it is determined that the electric motor 2 is in an electric power generating state, it is allowed that electricity is turned on in the electric heater." To this examiner, that sounds like the description of a simple electrical switch (such as switch 4 in JP '763 that connects the generator 1 directly to the electric heater 9). The electric motor 2 gets connected to the heater 20 when the motor is regenerating (e.g. the car is braking or going down hill, similar to what is disclosed in paragraph 0028 of JP '763). The prior art to JP 6-344763 or JP 2000-59918 fairly teaches that. Beginning on page 17, lines 21-25 a rather complicated explanation of what could be an exceedingly simple piece of structure ensues that it is submitted is not itself a piece of structure (such an electrical current regulator or some such electrical part that raises the allowed amount of current to flow through it responsive sensing the motor is in a regeneration mode as the

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complicated sounding language might suggest) but rather a somewhat overly complex explanation of how something very simple actually works.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 11, 12, 17 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of JP 2001-097028 (discussed in applicant's specification) and either one of JP 6-344763 or JP 2000-59918.

JP '028 from all appearances uses at least one electric heater 5 to supplement the coolant based heater core 2, when the coolant is not sufficiently heated to provide all of the heat to the vehicle compartment. Apparently, the amount of battery current delivered to the at least one electric heater is controlled so as not to drain the battery too much during the electric heater mode. The partial translation provided by applicant appears to support the examiner's understanding although it is very cursory.

JP '763 and JP '918 each teach using the regenerative energy from electric motor deceleration and/or braking to augment the heating performance of the heater by supplying any and all excess electricity (beyond that needed to charge the battery in the case of JP '918) to an electric heater. It is submitted that by supplying excess electricity

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directly back to the heater (beyond that needed to fully charge the battery in the case of JP '918) regardless of the output of the current from the electric motor that is acting as a regenerator, these references are inherently teaching the subject matter argued to be novel and non-obvious, unless the examiner is missing something. In JP '763 and JP '918 there is no limit on the maximum electric power at all and the amount of power dumped into the heater could take on nearly any maximum value depending on how big a hill the automobile is descending, for example, inherently well in excess of the value needed to prevent the undesirable discharge of the battery in JP '028 (since neither JP '763 nor JP '918 restrict the upper limit of regenerative energy put into the electric heater at all).

To have added such a system (as taught by JP '763 and JP '918) of using the all of the regenerative energy from electric motor deceleration and/or braking to augment the heating performance of the heater 5 of JP '028 by supplying all the regenerated electricity (as taught by JP '763) or any excess electricity (beyond that needed to charge the battery as taught by JP '918) directly into the electric heater 5 of JP '028 would have been obvious to one of ordinary skill in the art in view of these two references for the purpose of not having to waste valuable energy and improving occupant comfort. It is submitted that this modification would not affect the operation of the controller in JP '028 that limits the outflow of electricity from the battery to the electric heater when the battery is becoming excessively low on charge. Nothing synergistic appears to happen when the teachings of the references are combined.

Applicant's amendment necessitated the more involved explanation of the rejection presented in this Office action, because the examiner is unsure of precisely what applicant maintains is missing from the combined prior art. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**John K. Ford**  
Primary Examiner